## RTIP ID# (required) ORA120504

TCWG Consideration Date August 28, 2012

## Project Description (clearly describe project)

The proposed La Pata Avenue Extension Project (project) is located in the Cities of San Clemente and San Juan Capistrano, as well as in unincorporated Orange County (County). The northern terminus of the project begins from approximately 900 feet south of Ortega Highway (State Route 74 [SR-74]) in the County of Orange, through the City of San Juan Capistrano and the County's Prima Deshecha Landfill, to the southern terminus at Calle Saluda in the City of San Clemente. The total length of the project measures approximately 3.2 miles.

The existing La Pata Avenue stretches from SR-74 to the northern limits of the Prima Deshecha Landfill and from Calle Saluda to Avenida Pico. There is an existing gap in La Pata Avenue from the northern limits of the Prima Deshecha Landfill to Calle Saluda. La Pata Avenue is a six-lane major arterial highway from Avenida Pico to Avenida Vista Hermosa in the City of San Clemente. From Avenida Vista Hermosa to Calle Saluda, it reduces in width to a four-lane primary arterial highway. La Pata Avenue is a three-lane roadway between the northerly limits of the Prima Deshecha Landfill and SR-74.

Type of Project Gap closure	ct (use T	able 1 on instr	ruction st	neet)				
County	Narrati	ive Location	/Route	& Postmiles: La	a Pata Av	enue		
Orange	Caltra	Caltrans Projects						
Lead Agency:	Orang	e County Pub	olic Wor	ks				
Contact Perso	on	Phone#	Fa	ıx#	Email			
Harry Persaud		714-667-965	5 7	14-834-2496	Harry. <sub>I</sub>	persaud@ocp	w.ocgov.com	
Hot Spot Pollu	Hot Spot Pollutant of Concern (check one or both) PM <sub>2.5</sub> x PM <sub>10</sub> x							
Federal Action	n for wh	ich Project-	Level P	M Conformity is	Needed	(check approp	riate box)	
	gorical usion PA)	X EA o	or FONSI or aft EIS EIS		r Final PS&E o Constru tion			
Scheduled Da	te of Fe	deral Action	1: May 2	013				
NEPA Delegat	tion – Pi	roject Type	(check a	ppropriate box)				
Exen	npt			Section 6004 – Categorical Exclusio		X Section 6005 – Non Categorical Exclusion		
<b>Current Progr</b>	amming	<b>Dates</b> (as a	appropri	ate)				
	PE/En	vironmental		ENG		ROW	CON	
Start	N	ov 2011	Nov 2011		Ma	ay 2013	June 2013	
End	M	ay 2013		May 2013	May 2014 Sep 2014		Sep 2014	
	141	ay 2010		may 2010	IVIC	xy =011	00p =0	

**Project Purpose and Need (Summary):** (attach additional sheets as necessary)

**Purpose.** The purpose of the project is to extend La Pata Avenue to provide a connection between Ortega Highway to the north and Avenida Vista Hermosa to the south. The project would achieve the following goals: accomplish the following specific objectives:

- Relieve existing and future traffic congestion and improve the flow of traffic on connecting roadways within the Cities of San Juan Capistrano and San Clemente, and unincorporated County jurisdiction.
- Accommodate planned growth and development in the surrounding areas.
- Provide improvements consistent with local planning documents.
- Provide arterial access to existing and proposed developments in Forster Ranch and Talega, the Prima Deshecha Landfill, and future development within Rancho Mission Viejo (RMV).

**Need.** La Pata Avenue serves as a key connection route between the communities of Forster Ranch and Talega in the City of San Clemente, and the future planned RMV located in unincorporated County limits. The closest other roadway that provides this type of connection is Interstate 5 (I-5), located approximately 2.05 mi to the west. As a result of the distance to I-5 from these communities, La Pata Avenue experiences a consistent amount of local traffic, despite the rural design of much of the roadway. In addition to serving this local demand, La Pata Avenue also serves as a primary access to the Prima Deshecha Landfill.

## **Surrounding Land Use/Traffic Generators** (especially effect on diesel traffic)

Land uses surrounding and adjacent to the project alignment include mostly vacant properties, residential uses, San Juan Hills High School, Rancho Mission Viejo Riding Park, and Prima Deshecha Landfill.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility 2016 – La Pata Avenue

No Build; ADT = 173,900–291,200; Truck ADT = 10,100–16,900

Build; ADT = 174,200–293,400; Truck ADT = 10,100–17,000

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

2040- La Pata Avenue

No Build; ADT = 187,100–303,100; Truck ADT = 10,900–17,600

Build; ADT = 188,000–309,500; Truck ADT = 10,900–18,000

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT	
N/A	
RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT	
N/A	
Describe potential traffic redistribution effects of congestion relief (impact on other facilities) See attached analysis	
Comments/Explanation/Details (attach additional sheets as necessary) See attached analysis	

## PM<sub>2.5</sub>/PM<sub>10</sub> Hot-Spot Analysis

The proposed project is located within a nonattainment area for federal particulate matter less than 2.5 microns in diameter ( $PM_{2.5}$ ) and particulate matter less than 10 microns in diameter ( $PM_{10}$ ) standards. Therefore, per 40 CFR Part 93, hot-spot analyses are required for conformity purposes. However, the United States Environmental Protection Agency (EPA) does not require hot-spot analyses, qualitative or quantitative, for projects that are not listed in Section 93.123(b)(1) as an air quality concern. The project does not qualify as a project of air quality concern (POAQC) because of the following reasons:

- i. As the proposed project would extend La Pata Avenue, it is a new highway project. However, based on the Traffic Study (Austin-Foust, Inc., January 2010), the traffic volumes in the project area would not exceed the 125,000 average daily trips or 10,000 average daily truck trip thresholds for a POAQC. The 2016 opening year and 2035 build-out traffic volumes are shown in Tables A and B, respectively. It is anticipated that 98 percent of the landfill truck traffic will continue to use the exisiting section of La Pata Avenue located between the Prima Deshecha Landfill and Ortega Highway. Therefore, the truck volume along the gap closure will be less than 1 percent.
- ii. The LOS conditions in the project vicinity with and without the proposed project are shown in Tables C through E. Based on the Traffic Study, two intersections, I-5 southbound ramps at Avenida Pico and I-5 northbound ramps at Avenida Pico, would worsen from LOS D/E to LOS F. However, as shown in Table G the proposed project's contribution to those intersections is minimal. In addition, as discussed in Section (i), the truck volumes along the new segment of La Pata Avenue are projected to be less than 1 percent of the total traffic. Therefore, the proposed project does not affect intersections that are at LOS D, E, or F with a significant number of diesel vehicles.
- iii. The proposed project does not include the construction of a new bus or rail terminal.
- iv. The proposed project does not expand an existing bus or rail terminal.
- v. The proposed project is not in or affecting locations, areas, or categories of sites that are identified in the PM<sub>2.5</sub> and PM<sub>10</sub> applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

Therefore, the proposed project meets the Clean Air Act requirements and 40 CFR 93.116 without any explicit hot-spot analysis. The proposed project would not create a new, or worsen an existing,  $PM_{10}$  or  $PM_{2.5}$  violation.

Table A: 2016 Average Daily Traffic Volumes

	No Pro	ject	With Project				
Roadway Link	Total ADT	Truck ADT	Total ADT	Truck ADT	Project Change		
La Pata south of Ortega Highway	8,000	740	20,000	860	12,000 / 120		
La Pata extension (new roadway)	0	0	13,000	130	13,000 / 130		
La Pata south of Vista Hermosa	9,000	90	13,000	130	4,000 / 40		
La Pata north of Vista Hermosa	5,000	50	16,000	160	11,000 / 110		

ADT = average daily trips

Table B: 2035 Average Daily Traffic Volumes

	No Pro	ject	With Project				
Roadway Link	Total ADT	Truck ADT	Total ADT	Truck ADT	Project Change		
La Pata south of Ortega Highway	8,000	1600	31,000	1,830	23,000 / 230		
La Pata extension (new roadway)	0	0	27,000	270	27,000 / 270		
La Pata south of Vista Hermosa	12,000	120	20,000	200	8,000 / 80		
La Pata north of Vista Hermosa	5,000	50	30,000	300	25,000 / 250		

Source: Austin-Foust Associates, Inc., Traffic Study, January 2010.

ADT = average daily trips

**Table C: 2016 No Build Intersection Level of Service** 

		A.M. Peak H	lour	P.M. Peak Hour		
	Intersection	Delay (sec)	LOS	Delay (sec)	LOS	
44	I-5 SB Ramps & Oso	8	Α	12	В	
45	I-5 NB Ramps & Oso	12	В	23	С	
46	I-5 SB Ramps & Crown Valley	23	С	73	Е	
47	I-5 NB Ramps & Crown Valley	11	В	11	В	
48	I-5 SB Ramps & Avery	15	В	23	С	
49	I-5 NB Ramps & Avery	17	В	47	D	
50	I-5 SB Ramps & Ortega	28	С	41	D	
51	I-5 NB Ramps & Ortega	35	С	31	С	
52	Camino Capistrano & I-5 SB Ramps	35	С	69	Е	
53	Valle & La Novia/I-5 NB Ramps	29	D	107	F	
54	I-5 SB Ramps & Vista Hermosa	23	С	22	С	
55	I-5 NB Ramps & Vista Hermosa	12	В	7	А	
56	I-5 SB Ramps & Pico	19	В	52	D	
57	I-5 NB Ramps & Pico	21	С	36	D	
60	SR-241 SB Ramps & Oso	7	Α	10	В	
61	SR-241 NB Ramps & Oso	13	В	3	А	
73	I-5 SB Ramps & Junipero Serra	16	В	39	D	
74	I-5 NB Ramps & Junipero Serra	43	D	48	D	
90	I-5 NB Ramps & Camino de Estrella	16	В	16	В	
91	I-5 SB Ramps & Camino de Estrella	18	В	25	С	

I-5 = Interstate 5

LOS = level of service

NB = northbound

SB = southbound

 $\sec = \sec$ 

**Table D: 2016 Build Intersection Level of Service** 

		A.M. Peak H	lour	P.M. Peak Hour		
	Intersection	Delay (sec)	LOS	Delay (sec)	LOS	
44	I-5 SB Ramps & Oso	8	Α	12	В	
45	I-5 NB Ramps & Oso	13	В	19	В	
46	I-5 SB Ramps & Crown Valley	20	С	52	D	
47	I-5 NB Ramps & Crown Valley	10	В	10	В	
48	I-5 SB Ramps & Avery	15	В	24	С	
49	I-5 NB Ramps & Avery	16	В	21	С	
50	I-5 SB Ramps & Ortega	22	С	40	D	
51	I-5 NB Ramps & Ortega	23	С	25	С	
52	Camino Capistrano & I-5 SB Ramps	30	С	60	Е	
53	Valle & La Novia/I-5 NB Ramps	17	С	45	Е	
54	I-5 SB Ramps & Vista Hermosa	24	С	21	С	
55	I-5 NB Ramps & Vista Hermosa	13	В	8	Α	
56	I-5 SB Ramps & Pico	24	С	54	D	
57	I-5 NB Ramps & Pico	22	С	62	Е	
60	SR-241 SB Ramps & Oso	10	Α	10	В	
61	SR-241 NB Ramps & Oso	19	В	3	Α	
73	I-5 SB Ramps & Junipero Serra	16	В	40	D	
74	I-5 NB Ramps & Junipero Serra	40	D	42	D	
90	I-5 NB Ramps & Camino de Estrella	17	В	17	В	
91	I-5 SB Ramps & Camino de Estrella	17	В	26	С	

I-5 = Interstate 5

LOS = level of service

NB = northbound

SB = southbound

 $\sec = \sec$ 

**Table E: 2035 No Build Intersection Level of Service** 

		A.M. Peak H	lour	P.M. Peak Hour		
	Intersection	Delay (sec)	LOS	Delay (sec)	LOS	
44	I-5 SB Ramps & Oso	9	Α	13	В	
45	I-5 NB Ramps & Oso	11	В	15	В	
46	I-5 SB Ramps & Crown Valley	28	С	100	F	
47	I-5 NB Ramps & Crown Valley	42	D	38	D	
48	I-5 SB Ramps & Avery	13	В	17	В	
49	I-5 NB Ramps & Avery	16	В	18	В	
50	I-5 SB Ramps & Ortega	51	D	50	D	
51	I-5 NB Ramps & Ortega	55	D	44	D	
52	Camino Capistrano & I-5 SB Ramps	50	D	44	D	
53	Valle & La Novia/I-5 NB Ramps	121	F	399	F	
54	I-5 SB Ramps & Vista Hermosa	27	С	17	В	
55	I-5 NB Ramps & Vista Hermosa	12	В	8	А	
56	I-5 SB Ramps & Pico	40	D	71	Е	
57	I-5 NB Ramps & Pico	28	С	44	D	
60	SR-241 SB Ramps & Oso	9	Α	36	D	
61	SR-241 NB Ramps & Oso	18	В	8	Α	
73	I-5 SB Ramps & Junipero Serra	26	С	66	Е	
74	I-5 NB Ramps & Junipero Serra	36	D	164	F	
90	I-5 NB Ramps & Camino de Estrella	17	В	18	В	
91	I-5 SB Ramps & Camino de Estrella	17	В	29	С	

I-5 = Interstate 5

LOS = level of service

NB = northbound

SB = southbound

 $\sec = \sec$ 

Table F: 2035 Build Intersection Level of Service

		A.M. Peak I	lour	P.M. Peak Hour		
	Intersection	Delay (sec)	LOS	Delay (sec)	LOS	
44	I-5 SB Ramps & Oso	9	А	13	В	
45	I-5 NB Ramps & Oso	13	В	15	В	
46	I-5 SB Ramps & Crown Valley	19	В	78	Е	
47	I-5 NB Ramps & Crown Valley	16	В	32	С	
48	I-5 SB Ramps & Avery	14	В	18	В	
49	I-5 NB Ramps & Avery	16	В	18	В	
50	I-5 SB Ramps & Ortega	33	С	46	D	
51	I-5 NB Ramps & Ortega	30	С	30	С	
52	Camino Capistrano & I-5 SB Ramps	31	С	29	С	
53	Valle & La Novia/I-5 NB Ramps	91	F	142	F	
54	I-5 SB Ramps & Vista Hermosa	16	В	15	В	
55	I-5 NB Ramps & Vista Hermosa	21	С	12	В	
56	I-5 SB Ramps & Pico	39	D	125	F	
57	I-5 NB Ramps & Pico	27	С	112	F	
60	SR-241 SB Ramps & Oso	10	В	41	D	
61	SR-241 NB Ramps & Oso	33	С	22	С	
73	I-5 SB Ramps & Junipero Serra	25	С	49	D	
74	I-5 NB Ramps & Junipero Serra	35	С	23	С	
90	I-5 NB Ramps & Camino de Estrella	17	В	18	В	
91	I-5 SB Ramps & Camino de Estrella	17	В	30	С	

I-5 = Interstate 5

LOS = level of service

NB = northbound

SB = southbound

 $\sec = \sec$ 

**Table G: Traffic Volume Comparison** 

Attainment Plan Maximum	Intersection 1		Intersection 2		Intersection 3		Intersection 4	
Volumes	AM	PM	AM	PM	AM	PM	AM	PM
Existing Traffic Volumes	Wilshire Bo Veteran A			Boulevard/ nd Avenue	La Cienega Boulevard/Century Boulevard		Long Beach Boulevard/Imperial Highway	
Intersection Total	8,062	7,719	6,614	7,374	6,635	8,674	4,212	5,514
Turn Maximum	384	780	200	263	700	1,187	176	202

Source: Protocol User Workbook (University of California, Davis 1998).

Build Alternative	Intersection 1		Interse	Intersection 2		section 3	Intersection 4		
Maximum Volumes	АМ	PM	АМ	PM	АМ	PM	AM	PM	
2016 No Build	I-5 SB	Ramps/	La N	lovia/	I-5 SE	Ramps/	I-5 NB F	Ramps/	
Conditions	Crowr	n Valley	I-5 NB	Ramps	ı	Pico	Pic	ю	
Intersection Total	6,037	7,788	1,763	2,349	3,392	4,150	4,684	5,146	
Turn Maximum	1,239	1,608	401	554	959	896	1,148	1,002	
2016 Build	I-5 SB	Ramps/	La N	lovia/	I-5 SE	Ramps/	I-5 NB F	Ramps/	
Conditions	Crown Valley		I-5 NB	Ramps	ı	Pico		Pico	
Intersection Total	5,996	7,576	1,573	2,052	3,413	4,078	4,560	5,130	
Turn Maximum	1,295	1,599	301	408	890	785	998	895	
Build Alternative	Intersection 1		Intersection 2		Intersection 3		Intersection 4		
Maximum Volumes	АМ	PM	АМ	PM	АМ	PM	AM	PM	
2035 No Build	I-5 SB Ramps/		La Novia/		I-5 SB Ramps/		I-5 NB Ramps/		
Conditions	Crowr	n Valley	I-5 NB	Ramps	ı	Pico	Pico		
Intersection Total	6,930	8,860	2,570	3,600	3,990	4,880	5,630	6,070	
Turn Maximum	1,250	1,820	500	910	1,170	1,130	1,490	1,230	
2035 Build	I-5 SB	Ramps/	La N	Novia/	I-5 SE	I-5 SB Ramps/		Ramps/	
Conditions	Crown Valley		I-5 NB	I-5 NB Ramps		Pico		Pico	
Intersection Total	6,540	8,470	2,310	2,380	4,040	4,710	5,340	6,030	
Turn Maximum	1,260	1,830	550	590	1,010	870	1,140	980	

Source: Austin-Foust Associates, Inc., Traffic Study, January 2010.

I-5 = Interstate 5

NB = northbound

SB = southbound